

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:	)	
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Stefan DYCKERHOFF et al.	)	Group Art Unit: 2145
	)	
Application No.: 09/991,109	)	Examiner: A. Mirza
	)	
Filed: November 26, 2001	)	
	)	
For: INTERFACING WITH STREAMS	)	
OF DIFFERING SPEEDS	)	

U.S. Patent and Trademark Office  
Customer Service Window, Mail Stop Amendment  
Randolph Building  
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Alexandria, VA 22314

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Applicants hereby request that a panel of Examiners formally review the legal and factual basis of the rejection in the above-identified application prior to the filing of an Appeal Brief. Applicants assert that the outstanding rejections are clearly incomplete, improper, and based upon errors in fact.

Claims 1-57, 59, and 61-63 are pending. Claims 1-57, 59, and 61 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Zhang et al. (U.S. Patent No. 6,795,506). Initially, Applicants note that the Examiner did not address claims 62 and 63 in any manner. Thus, the Office Action is *incomplete*.

Applicants submit that the Examiner's rejection under 35 U.S.C. § 102 is *improper* and based on *factual errors*.

For example, Zhang et al. does not disclose or suggest an interface controller that comprises a first arbitration element to arbitrate among a plurality of streams of different speeds to store data in a memory, where the first arbitration element includes a number of first entries, one of the first entries indicates which of the streams is to be serviced in a particular first time slot, and the streams are assigned to the first entries based on the speeds of the streams, as recited in independent claim 1.

The Examiner alleged that Zhang et al. discloses a first arbitration element and cited column 5, lines 51-67, of Zhang et al. for support (Office Action, page 2). Applicants submit that this section of Zhang et al. provides absolutely no support for the Examiner's allegation.

At column 5, lines 51-67, Zhang et al. discloses means for scheduling a first compressed bitstream and a second compressed bitstream using bit rate information. Nowhere in this section, or

elsewhere, does Zhang et al. disclose or remotely suggest a first arbitration element, as recited in claim 1. For example, Zhang et al. does not disclose: (1) a first arbitration element that arbitrates among a plurality of streams of different speeds to store data in the memory; (2) that the first arbitration element includes a number of first entries; (3) that one of the first entries indicates which of the streams is to be serviced in a particular first time slot; and (4) that the streams are assigned to the first entries based on the speeds of the streams, as recited in independent claim 1. Zhang et al. does not disclose these features and the Examiner has provided absolutely no evidence to the contrary.

Zhang et al. also does not disclose or suggest a dispatch unit that comprises a second arbitration element to arbitrate among the streams to read the data from the memory, where the second arbitration element includes a number of second entries, one of the second entries indicates which of the streams is to be serviced in a particular second time slot, and the streams are assigned to the second entries based on the speeds of the streams, as further recited in claim 1.

The Examiner alleged that Zhang et al. discloses a second arbitration element and cited column 21, lines 52-67, and column 27, lines 39-54, of Zhang et al. for support (Office Action, page 2). Applicants submit that this section of Zhang et al. provides absolutely no support for the Examiner's allegation.

At column 21, line 52 - column 22, line 1, Zhang et al. discloses a bit rate converter apparatus 406 that adjusts the bit rate for each compressed bitstream so that saved bandwidth can be used for a different compressed bitstream. Nowhere in this section, or elsewhere, does Zhang et al. disclose or remotely suggest a second arbitration element, as recited in claim 1. For example, Zhang et al. does not disclose: (1) a second arbitration element that arbitrates among the streams to read the data from the memory; (2) that the second arbitration element includes a number of second entries; (3) that one of the second entries indicates which of the streams is to be serviced in a particular second time slot; and (4) that the streams are assigned to the second entries based on the speeds of the streams, as recited in independent claim 1. Zhang et al. does not disclose these features and the Examiner has provided absolutely no evidence to the contrary.

At column 27, lines 39-54, Zhang et al. discloses a scheduler that schedules a first compressed bitstream and a second compressed bitstream using bit rate information to provide a compressed bitstream comprising first and second video data. Nowhere in this section, or elsewhere, does Zhang et al. disclose or remotely suggest a second arbitration element, as recited in claim 1. For example, Zhang et al. does not disclose: (1) a second arbitration element that arbitrates among the streams to read the data from the memory; (2) that the second arbitration element includes a number of second entries; (3) that

one of the second entries indicates which of the streams is to be serviced in a particular second time slot; and (4) that the streams are assigned to the second entries based on the speeds of the streams, as recited in independent claim 1. Zhang et al. does not disclose these features and the Examiner has provided absolutely no evidence to the contrary.

For at least these reasons, Applicants submit that claim 1 is not anticipated by Zhang et al. Claims 2-20 and 59 depend from claim 1 and are, therefore, not anticipated by Zhang et al. for at least the reasons given with regard to claim 1.

Independent claim 21 recites, among other things, storing data from a plurality of streams of potentially different speeds in a memory using a first arbitration scheme that stores data associated with a faster one of the streams in the memory at a higher rate than data associated with a slower one of the streams. Zhang et al. simply discloses nothing similar to these features, and the Examiner did not specifically address these features.

Zhang et al. also does not disclose or suggest reading the data from the memory using a second arbitration scheme that reads the data associated with the faster one of the streams from the memory at a higher rate than the data associated with the slower one of the streams, as further recited in claim 21. Zhang et al. simply discloses nothing similar to these features either, and the Examiner did not specifically address these features. Therefore, the Examiner's rejection is *incomplete*.

For at least these reasons, Applicants submit that claim 21 is not anticipated by Zhang et al. Claims 22-39 and 61 depend from claim 21 and are, therefore, not anticipated by Zhang et al. for at least the reasons given with regard to claim 21.

Independent claim 40 recites, among other things, a counter that is configured to determine a number of entries in the buffer corresponding to each of the streams of variable speeds. Zhang et al. does not disclose or suggest this feature. The Examiner did not specifically address this feature of claim 40. Therefore, the Examiner's rejection is *incomplete*.

For at least these reasons and the reasons given at pages 29-31 of the Amendment, filed March 8, 2007, Applicants submit that claim 40 is not anticipated by Zhang et al. Claims 41-47 depend from claim 40 and are, therefore, not anticipated by Zhang et al. for at least the reasons given with regard to claim 40.

Independent claims 48 and 55 recite features similar to, but possibly different in scope from, features recited in claim 40. Claims 48 and 55 are, therefore, not anticipated by Zhang et al. for at least reasons similar to reasons given with regard to claim 40. Claims 49-54 depend from claim 48 and are, therefore, not anticipated by Zhang et al. for at least the reasons given with regard to claim 48.

Independent claim 56 recites, among other things, an input interface configured to, among other things, access a first arbitration scheme that services a faster one of the streams more often than a slower one of the streams and output packets based on the first arbitration scheme. Zhang et al. does not disclose or suggest these features for at least reasons similar to reasons given with regard to claim 21.

Claim 56 further recites a dispatch unit configured to access a second arbitration scheme that services the faster one of the streams more often than the slower one of the streams, and read packets from the memory based on the second arbitration scheme. Zhang et al. also does not disclose or suggest these features for at least reasons similar to reasons given with regard to claim 21.

For at least these reasons, Applicants submit that claim 56 is not anticipated by Zhang et al.

Independent claim 57 recites, among other things, means for storing the packets based on a first arbitration scheme that stores the packets based on the speeds of the streams to which the packets belong. Zhang et al. does not disclose or suggest this feature for at least reasons similar to reasons given with regard to claim 1. The Examiner did not specifically address this feature of claim 57.

Claim 57 further recites means for reading the packets based on a second arbitration scheme that reads the packets based on the speeds of the streams to which the packets belong. Zhang et al. does not disclose or suggest this feature for at least reasons similar to reasons given with regard to claim 1. The Examiner did not specifically address this feature of claim 57.

In view of the foregoing remarks, Applicants submit that clear deficiencies exist with respect to the rejections of claims 1-57, 59, and 61. Therefore, Applicants respectfully request withdrawal of the outstanding rejections and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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